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REMARKS/ARGUMENTS

Prior to entry of the amendments specified above, claims 1-7 are pending in the application under a non-final rejection.

I. New Oath or Declaration

Applicants duly note the requirement for a new oath and request that this objection be held in abeyance while they attend to this formality.

II. Objections to the Specification

Informalities regarding the arrangement of applicants' specification (i.e., section headings) have been addressed as suggested by the Examiner. On page 3, lines 4-5 of applicants' specification, "in this data source" was objected to for not being defined. The Examiner is directed to page 2, line 21, which introduces "a data source" prior to its occurrence on page 3. In view of this, no amendment has been made.

On page 15, line 13 of the specification, the Examiner suggested that the word "from" in the phrase "parameterized information from the input data" should read "for." Applicants thank the Examiner for his courtesy in suggesting corrective language, but believe that the use of "from" in the context of the sentence is correct. Therefore, no amendment has been requested.

On page 7, lines 26-27 of the specification, applicants have amended the specification to correctly reference FIG. 5, as suggested by the Examiner.

Applicants thank the Examiner for the suggested alternative title and have requested amendment to a "A Universal Motion Controller with a Data Source and Converter," which they believe to be accurate and detailed, yet succinct.

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III. Rejection Under 35 U.S.C. § 112, first paragraph

Claims 6 stands rejected under 35 U.S.C. § 112, first paragraph. Claim 6 was rejected on the grounds that the phrase "adjusted number of" renders the claim indefinite. Claim 6 has been amended to delete "an adjusted number of" and substitute "at least one." Support for this amendment can be found on page 11, line 29 of applicants' specification. No new matter has been added. Therefore, claim 6 is allowable.

IV. Rejection Under 35 U.S.C. § 112, second paragraph

Claim 1, 4, 6, and 7 stand rejected under 35 U.S.C. § 112, second paragraph. Claim 1 was rejected because the Examiner indicated that "it does not follow that the technology packet would also originate from the run time system." Claim 1 has been amended to recite "current data for a technical process for the run time system," to clarify that the technology packet is loaded into the run time system. Also, claim 1 has been amended to assure antecedent basis for the limitations "the classic tasks," "the group," and "the technical process."

Claim 4 was rejected on the grounds of an insufficient antecedent basis for the limitation "the technology packets." Claim 4 has now been amended to delete "the technology packets comprise" and substitute "the technology packet comprises."

Claim 6 has been amended to comply with the Examiner's previous rejection under 35 U.S.C. § 112, first paragraph.

Claim 7 was rejected on the grounds of antecedent basis for the limitation "the user interface information." Claim 7 has been amended to read, in pertinent part, "information presented on the user interface."

Accordingly, claims 1, 4, 6, and 7 are submitted to be allowable.

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V. Rejection Under 35 U.S.C. § 103(a)

Claims 1-2 and 4-7 have been rejected as being unpatentable over U.S. Patent No. 5,933,638 to Cencik (hereinafter "Cencik") in view U.S. Patent No. 6,438,444 to Mizuno et al (hereinafter "Mizuno"). Applicants respectfully submit that these rejections are traversed on the basis of the following arguments.

As described in the application, the present invention is intended, among other things, to permit the creation of optimal configurations for combined PLC/NC controllers. The configurations can be optimized for their controller structures, for their functionality with respect to different controller tasks, and for their compatibility with different constraints or requirements associated with the underlying technical processes they are involved in controlling. According to an aspect of the invention, descriptive information for the controller, which may include parameterization information, is made available from a data source to the engineering system via a converter that prepares and distributes the descriptive information to the engineering system. Among other resulting advantages, original equipment manufacturers, whose systems may incorporate or otherwise work in conjunction with such a combined PLC/NC controller, may create the descriptive information, and that descriptive information can be entered into the data source for conversion and provision to the engineering and/or run-time system.

i. Claims 1-2, and 4-7

An obviousness rejection requires the establishment of a prima facie case that claimed subject matter, including all claim elements, would have been obvious to a person having ordinary skill in the art on the basis of either a single prior art reference, or more than one reference properly combined. As no such prima facie case has been established, Applicants respectfully traverse these prior art rejections.

Claim 1 of the subject application is directed to a "motion controller having an engineering system and a run time system and that functionally combines the classic tasks of a PLC and a numerical controller." Claim 1 further recites that the motion controller comprises "a uniform run level model comprising a plurality of run levels of different types having differing

priorities and further comprising a plurality of user and system-levels having differing priorities.”

Cencik, the primary applied reference, fails to disclose these recited aspects of the invention of claim 1. This is not surprising, since Cencik is an attempt to solve a problem bearing little relation to the concerns addressed by the claimed invention. Cencik seeks to describe a system that purportedly allows the graphical creation of application programs by placing “objects” into a so-called “Object Evaluation Matrix.” (See col. 4, lines 9-18). This is said to allow a user to create an application program by dragging and dropping names (or icons), associated with various objects, into the Matrix. (See col. 5, lines 11-21). The objects that have been placed in the Matrix are then executed according to either a default scan order, or according to a user defined scan order.

Directed at a graphical approach for creating and debugging application programs, Cencik fails to disclose or even contemplate the creation of a run time system comprising a plurality of run levels, user levels and system-levels, as claimed. Neither the cited passage (column 8, line 42 through column 9, line 33), nor other parts of Cencik contains disclosure that would support the rejection.

But this is not the only defect with the Cencik reference. Claim 1 goes on to recite subject matter admittedly absent from Cencik, namely a data source for description information for one of the group consisting of system variables, alarms and commands and a converter coupled to the data source and to at least the engineering system. These limitations are said to be supplied by Mizuno.

Mizuno, with all due respect, fails to disclose or even to suggest the provision of description information to an engineering system via a converter. A careful reading of Mizuno reveals that it is limited to downloading control software modules from a storage device to numerical controllers. It does not disclose the provision of information to any engineering system and or the transfer of any description information from a storage device to any other device.

Mizuno, furthermore, clearly does not disclose the recited converter, much less a converter coupled to a data source and to an engineering system and involved in providing description information from the data source to the engineering system, as required. Attempting to address concerns that differ from those of the claimed invention (as well as from those of Cencik), Mizuno simply does not contemplate conversion of information.

Still further, Mizuno does not disclose, as required, a motion controller "being further configured to permit a technology packet to be loaded into at least one of the engineering and run time systems, to provide the system variable with current data for the technical process from the run time system and to permit input to be made via a user interface of the engineering system." There is simply no disclosure of any "technology packet," no disclosure of loading anything into an engineering system, nor any description of anything permitting input to be made via a user interface of an engineering system. Mizuno merely discloses downloading of control software modules to NC devices. There has been no showing whatever that this, in turn, discloses or suggests the various recited limitations identified immediately above.

Even assuming, without conceding, that Cencik and Mizuno could properly be combined, their combined disclosure fails to suggest many of the features of the claimed invention. Yet there has been no persuasive showing that Cencik and Mizuno can properly be combined. To the contrary, these references are directed to different problems and involve incompatible architectures. Cencik requires an engineering system or other programming platform. Mizuno, however, lacks such a system and, indeed, teaches away from it, going so far as to suggest that even a host is unnecessary (column 8, lines 9-15 and lines 34-40). Cencik, moreover, purports to describe a system for the creation of application programs using a so-called object evaluation matrix. There is no explanation as to how Cencik's highly specialized programming formalism and the code it supposedly generates is to be translated into the particularized control software modules Mizuno requires.

To establish a prima facie case of obviousness, there must be a suggestion to combine Cencik and Mizuno, and their combination must teach or suggest all the claim limitations of a rejected claim. These references cannot be properly combined and, even if they could be, they would fail to teach or in any way disclose all the elements of claim 1.

For these reasons, the rejection of claim 1 and the claims that depend from it, are submitted to patentable over the art of record. Applicants therefore respectfully urge that the rejections be withdrawn.

ii. Claim 2

Applicants submit that claim 2 is directed to patentable subject matter. "To support the conclusion that the claimed invention is obvious, the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to be obvious in light of the teachings of the references." MPEP 2143.03. This has not been done. Whether or not it is well-known to forward documentation information to an output medium, claim 2 calls for forwarding of the information by the converter from the data source to the output medium. All the limitations of claim 2, therefore, are submitted not to be susceptible of a taking of official notice. Accordingly, and because claim 2 depends from claim 1, this rejection should be withdrawn and the claim allowed.

iii. Claim 4

Claim 4 is directed to "technology packets" having "code parts" for the "run time system. As described in the foregoing, neither Cencik or Mizuno teach or suggest a "run time system." Furthermore, as described above, neither Cencik or Mizuno teach or suggest "technology packets." For this reason, and because it depends from claim 1, claim 4 recites allowable subject matter.

iv. Claim 5

As described above in connection with claims 1 and 4, neither Cencik or Mizuno disclose or suggest a technology packet, much less "the configuration part of a technology packet." Col. 2, lines 25-32 of Mizuno allegedly refer to control software for controlling numerical control devices. The reference does not describe or suggest delivering "the configuration part of a technology packet" to the "engineering system" or the "run time system" using a data source and

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converter. Accordingly, and because it depends indirectly from claim 1, claim 5 is submitted to be allowable.

v. Claim 6 and 7

As described above In view of the foregoing, neither Cencik or Mizuno teach or suggest a technology packet, much less any components of the technology packets, such as, a "technology object." Accordingly, and because they ultimately depend from claim 1, claims 6 and 7 are submitted to be allowable.

CONCLUSION

Upon entry of this Amendment, claims 1-7 are pending in the Application. Applicants submit that the claims, for the reasons set forth above, are now in condition for allowance. Reconsideration and allowance are therefore respectfully requested.

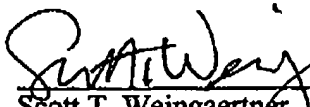
If a fee is required, the Assistant Commissioner is authorized to charge the fee to Deposit Account No. 23-1703.

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Respectfully submitted,

SEP 26 2003


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